in the study as the generator of trips. Employment is used as the attractor of trips. A trip generation rate of 7.0 was assigned to the planning area based on the average number of trips made from a household in a single day. See Trip Generation worksheets.

Commercial Vehicles

Commercial vehicles have somewhat different trip generation characteristics than do privately owned vehicles. For the purposes of this systems analysis, a Commercial Trip Generation Factor of 0.14 (percent of DU trips) was chosen based on an origin and destination survey of a similar size town (Ahoskie, NC) taken from Technical Report #11 (Allocation Type Approach To Estimatation of Travel For Small Urban Areas by Marion R. Poole, Ph.D., P.E.).

Trip Generation

The trip generation process is the process by which population and housing data and employment data are used to generate traffic volumes that duplicate the traffic volumes on the street network. The technical definition of a trip is slightly different than the definition of a trip used by the general public. Technically a trip only has one origin and one destination while the layman will often group, or chain, several short trips together as one longer trip. Traffic inside the planning area has three major components: through trips, internal-external trips, and internal trips.

Through trips are produced outside the planning area and pass through en route to a destination outside the planning area. For example, vacationers from northern North Carolina headed to the beaches. **Internal-external trips** have one end of the trip outside of the planning area. For example, a person lives in Tabor City but travels to Whiteville to work. **Internal trips** have both their origin and destination inside the planning area.

Through Trips - The Through Trip Table for this study was developed using Technical Report Number 3 (Synthesized Through Trip Table for Small Urban Areas by Dr. David G. Modlin, Jr.) and the Computer Supplement (Synthesized Through Trip Table for Small Urban Areas by James Tyler McDonnell) as a guide.

In developing the through trip table, the through trip percentages were entered into the computer synthesis program along with the ADT counts, functional class of the road, the percent of trucks and the route continuity. The program generated through trip percentages for each station. These percentages were modified to more accurately represent the actual traffic patterns of the area. The program then created an unbalanced matrix of all through trip possibilities and then balanced the trips so that the total number of through trips at each external station is consistent with the total number of through trips at every other station. Eight iterations were sufficient to balance the error between external zones.